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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of ) Group Art Unit: 1653  
Laszlo Otvos )  
Appln. No. 09/980,804 ) Examiner:  
Filed: December 3, 2001 )  
For: NOVEL PYRRHOCORICIN-DERIVED ) March 20, 2002  
PEPTIDES, AND METHODS OF USE )  
THEREOF )

Assistant Commissioner for Patents  
Washington, DC 20231

**INFORMATION DISCLOSURE STATEMENT**

Sir:

Applicants submit to the Examiner the attached Form PTO/SB/08A/B document listing and this paper pursuant to 37 CFR §1.56 and § 1.97-1.98. Form PTO/SB/08A/B is attached and copies of the references are enclosed herewith.

According to 37 CFR §1.97(c) and §1.97(e), Applicants and the undersigned attorney hereby certify that documents (AA), (AL), (AM) and (AR) were previously cited in the International Search Report in prior International Application No. PCT/US00/16989, filed June 21, 2000. This application is a 371 of that International patent application. A copy of the International Search Report is attached hereto.

The following comments are made on the documents that are in a language other than English.

Express Mail No. ET033626910US

(AN) International Publication No. WO99/05270 (in French) refers to antimicrobial penaeidin peptides from shrimp. Fragments of the peptide, nucleic acid sequences encoding the penaeidin peptide or fragments, recombinant vectors containing the nucleic acid sequences and transformed host cells are disclosed. The peptides are disclosed in the publication and have different amino acid and nucleic acid sequences than those recited in the instant invention. Compare, for example, the sequence listings of the two applications.

(AP) French Patent Application No. 2,732,345 (in French) refers to peptides from *Podisus maculiventris* having antibacterial activity against gram negative bacteria. These peptides have the formula: Val-Asp-Lys-Pro-Asp-Tyr-Arg-Pro-Arg-Pro- X, wherein X has at least one tripeptide motif Pro-Arg-Pro. This peptide has a different formula from the peptides claimed in the instant application.

(AQ) French Patent Application No. 2,695,392 (in French) refers to antibacterial peptides present in paleopterous insects, particularly *Aeschna cyanea*, which are active against gram positive and gram negative bacteria. These peptides are different from those recited in the present application. See claim 10 and Figs. 4 and 5 of this document.

(AAL) French Patent Application No. 2,733,237 (in French) refers to peptides from the *P. maculiventris* insect species, that are antibacterial and antifungal agents. These peptides contain the amino acid sequence Ile-Ile-Tyr-Cys-Asn-Arg-Arg-Thr-Gly-Lys -Cys-. See the abstract, pages 1, 3-4 and claim 1 of this document. These peptides are different from those disclosed in the present specification.

(AO) A translation of International Patent Publication No. WO97/30082 (in French) is provided that is its 35 USC §371 United States national phase application issued as US Patent No. 6,172,336 on October 3, 2000 with a 35 USC §102(c) date of November 16, 1998. This patent refers to peptides with antibacterial and antifungal properties. The peptides disclosed are different peptides than those recited in the instant application.

This Information Disclosure Statement is submitted more than three months from the filing date of this application, but prior to receipt of an Office Action on the merits. Therefore, no fees are believed due. However, the Director of the U. S. Patent and Trademark Office is hereby authorized to charge any deficiency in any fees due with the filing of this paper or credit any overpayment in any fees paid on the filing, or during prosecution of this application to Deposit Account No. 08-3040.

The Examiner is respectfully requested to consider the documents identified in this paper and in the attached Form PTO/SB/08A/B during the course of the examination of this application.

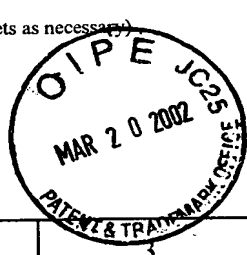
Respectfully submitted,

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Attorneys for the Applicants

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PTO/SB/08A (08-00)

Substitute for Form 1449A/PTO <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> (use as many sheets as necessary) 			<b>Complete if Known</b>		
			Application Number	09/980,804	
			Filing Date	December 3, 2001	
			First Named Inventor	Laszlo Otvos	
			Group Art Unit	1653	
			Examiner Name		
Sheet	1	of	3	Attorney Docket Number	WST91BUSA

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**U.S. PATENT DOCUMENTS**

Examiner Initials <sup>*</sup>	Cite No. <sup>1</sup>	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code <sup>2</sup> (if known)			
	AA	5,874,411	B1	O. Srivastava	02/23/1999	
	AB	6,127,336	B1	P. Bulet	10/03/2000	
	AC	6,331,522	B1	P. Bulet	12/18/2001	

**FOREIGN PATENT DOCUMENTS**

Examiner Initials <sup>*</sup>	Cite No. <sup>1</sup>	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Office <sup>3</sup>	Number <sup>4</sup>	Kind Code <sup>3</sup> (if known)				
	AL	WO	WO94/05787	A1	P. Bulet	03/17/1994		
	AM	EP	352,014	A2	J. Rivier	01/24/1990		
	AN	WO	WO99/05270	A2	D. Destoumieux	02/04/1999		
	AO	WO	WO97/30082	A2	P. Bulet	08/21/1997		
	AP	FR	2,732,345	A1	P. Bulet	10/04/1996		

Examiner Signature		Date Considered	
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\* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup>Unique citation designation number. <sup>2</sup>See attached Kinds of U.S. Patent Documents. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language Translation is attached.

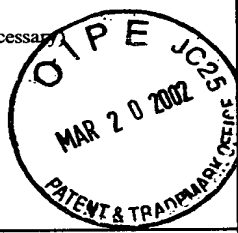
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		Office <sup>3</sup>	Number <sup>4</sup>	Kind Code <sup>5</sup> (if known)				
	AQ	FR	2,695,392	A1	P. Bulet	03/11/1994		
	AAL	FR	2,733,237	A1	P. Bulet	10/25/1996		
	AAM	WO	WO98/40401	A3	J. Fraser	09/17/1998		

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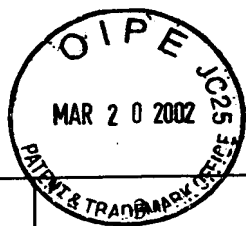
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			Examiner Name		
Sheet	3	of	Attorney Docket Number		WST91BUSA



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**OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS**

Examiners Initials <sup>1</sup>	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	AR	R. HOFFMANN et al, "Range of Activity and Metabolic Stability of Synthetic Antibacterial Glycopeptides from Insects", Biochimica et Biophysica Acta, 1426:459-467 (February, 1999)	
	AS	A. MCMANUS et al, "Conformational Studies by NMR of the Antimicrobial Peptide, Drosocin, and its Non-Glycosylated Derivative: Effects of Glycosylation on Solution Conformation", Biochemistry, 38(2):705-714 (1999)	
	AT	P. BULET et al, "Enlarged Scale Chemical Synthesis and Range of Activity of Drosocin, an O-glycosylated Antibacterial Peptide of Drosophila", Eur. J. Biochem., 238:64-69 (1996)	
	AU	P. BULET et al, "A Novel Inducible Antibacterial Peptide of Drosophila Carries an O-Glycosylated Substitution", J. Biol. Chem., 268(20):14893-14897 (July, 1993)	
	AV	S. COCIANCICH et al, "Novel Inducible Antibacterial Peptides from a Hemipteran Insect, the sap-sucking bug Pyrrhocoris apterus", Biochem. J., 300:567-575 (1994)	
	AW	D. HULTMARK, "Immune Reactions in Drosophila and Other Insects: A Model for Innate Immunity", Trends Genet., 9(5):178-183 (May, 1993)	
	AX	J. GILLESPIE et al, "Biological Mediators of Insect Immunity", Annu. Rev. Entomol., 42:611-643 (1997)	
	AY	L. OTVOS et al, "Insect Peptides with Improved Protease-Resistance Protect Mice Against Bacterial Infection", Protein Science, 9:742-749 (2000)	

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